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Electronic Supplementary Material

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Title: **Managing water services in tropical regions: From land cover proxies to hydrologic fluxes**

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Supporting Information for Figure 5

Because leaf area index (LAI) is a major control on the bidirectional flux of water within the atmosphere-plant-soil continuum, we examined the relationship between LAI and relative throughfall inputs for 14 studies and 34 high-elevation tropical sites reporting these data. We compiled throughfall observations for the years 1999 to present for montane forest and agroforest sites in Latin America and the Caribbean and Hawai'i. For each site, throughfall amount was divided by rainfall amount and expressed as a percentage. Simple linear regression was then used to assess the influence of leaf area index on relative throughfall input.

Reference	Location	Elevation (m asl)
Ataroff and Rada 2000	Venezuela	2350
Brauman et al. 2010	Hawai'i	962, 1047
Cannavo et al. 2011	Costa Rica	1200
Cantú Silva and González Rodríguez 2001	Mexico	1600
Fleischbein et al. 2005	Ecuador	1950
Giambelluca et al. 2011	Hawai'i	1219, 1951
Gomez-Peralta et al. 2008	Peru	2468, 2815
Hafkenscheid 2000	Jamaica	1809, 1824
Hölscher et al. 2003	Costa Rica	2900
Holwerda et al. 2010	Mexico	2060, 2124
Macinnis-Ng et al. 2012	Panama	950
Ponette-González et al. 2010	Mexico	1325-1575
Siles et al. 2010	Costa Rica	1200
Takahashi et al. 2011	Hawai'i	1029, 1201

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